Conclusions: The best medical therapy for carotid disease is not optimal in the part of the German health-care system observed in this study. We strongly advocate similar audits in other health-care areas and systems.

A Systematic Review of Percutaneous Mechanical Thrombectomy in the Treatment of Deep Venous Thrombosis

Karthikesalingam A., Young E.L., Hinchliffe R.J., Loftus I.M., Thompson M.M., Holt P.J.E. Eur J Vasc Endovasc Surg 2011;41:554-65.

Background: In selected cases of deep vein thrombosis (DVT), catheter-directed thrombolysis (CDT) may be superior to conventional treatment with anticoagulation alone, as it can prevent DVT recurrence and the development of post-thrombotic syndrome (PTS). Percutaneous mechanical thrombectomy (PMT) devices offer a minimally invasive adjunctive strategy and the data on these emerging technologies require review.

Objectives: To review the evidence for PMT devices in DVT in terms of case selection, technical feasibility and procedural outcomes.

Methods: Medline, trial registries, conference proceedings and article reference lists were searched to identify case series reporting PMT device use. Data were extracted for review.

Results: 16 retrospective case series have reported the use of rheolytic, rotational, or ultrasound-assisted PMT in a total of 481 patients. No randomised trials were available. Technical success of 82–100% was reported with Grade II or III lysis in 83–100% of patients. The different devices all appeared to be safe, with no reported procedure-related deaths or strokes and <1% incidence of symptomatic PE. Bleeding complications were reported in 6/16 studies, in which 4–14% of patients required transfusion (global incidence 11/146 patients, 7.5%).

Conclusion: PMT appears feasible and safe, though the level of evidence available is poor. Major RCTs and registry data are required to determine the economic and clinical benefit of various devices used alone or in combination, for differing thrombus characteristics and clinical scenarios. Until these data are available there is little substantial evidence to support the routine use of PMT over CDT alone.